NDT&E international

Index to Volume 27 (1994)

Number 1 (February) pp 1–64
Number 2 (April) pp 65–120
Number 3 (June) pp 121–176
Number 4 (August) pp 177–232
Number 5 (October) pp 233–296
Number 6 (December) pp 297–352

Article index

Number 1 (February)

Determination of the elastic constants of anisotropic solids
A.G. Every 3
Soft X-ray TV microscope for NDT developed in China
Tan Kaisheng, Li Zigao and Chen Shaofeng 11
Optimizing radiographic NDT techniques for welds
Li Yan 15
Small gap width measurement with a finite X-ray source
B. Karp and G. Adam 21
Characterization of fatigue damage in unidirectional GFRP composites through acoustic emission signal analysis
M.R. Bhat, M.A. Majeed and C.R.L. Murthy 27
A fundamental study on the use of the Kaiser effect for tectonic stress measurement
T. Kojima and K. Matsuki 33

Number 2 (April)

Estimation of acoustic properties and fracture dynamics of polycrystalline graphites by AE signal processing
H. Chou and M. Takemoto 67
Simultaneous determination of ultrasonic velocity, plate thickness and wedge angle using one-sided contact measurements
D.K. Hsu, A.M. Ayres, Meng Guangda and Ma Guangwen 75
3D image reconstruction using cone beam tomography
M.L. Jan, C.Y. Chen, C.K. Yeh, T.R. Yeh and M. T. Wang 83
Filmless X-ray evaluation of structures made of light materials
T.H. Jensen 89

Number 3 (June)

Laminogram reconstruction through regularizing Fourier filtration
Z. Danovitch and Y. Segal 123
Weep hole inspection by circumferential creeping waves
P.B. Nagy, M. Blodgett and M. Golis 131
NDE of multiple cracks on the surface of materials by means of the potential drop technique
R. Ghajarieh, M. Saka, T. Sugawara, H. Abé, I. Komura and H. Sakamoto 141

Number 4 (August)

The role of NDE in predicting residual life for aircraft engine components
D.J. Sturges 179
High-resolution photothermal imaging of near-surface defects in materials and components
E. Winschuh, K.-H. Winterberg and M. Kröning 185
Geotechnical field applications of AE/MS techniques at the Pennsylvania State University: a historical review
H.R. Hardy, Jr. 191
High resolution magnetic Barkhausen noise measurements
T.W. Krause and D.L. Atherton 201

Number 5 (October)

Positron lifetime spectroscopy (POLIS) – a new method of NDT
B. Somieski, H. Salz and R. Krause-Rehberg 235
Structural analysis of CFRP using eddy current methods
R. Lange and G. Mook 241
Surface condition monitoring of unalloyed steel sheet by measuring ferromagnetic properties and using multi-parameter data analysis
H. Ewald and J. Schacht 249
Nondestructive evaluation of polymer materials
G. Busse 253
Fundamentals of nondestructive materials characterization
W. Morgner 263
New methods of signal excitation and processing in magneto-inductive testing of structures and alloys
G. Mook and A. Tchernov 269
Nondestructive evaluation of single fibre debonding in composites by X-ray refraction
M.P. Hentschel, K.-W. Harbich and A. Lange 275

Number 6 (December)

Microwave scattering characteristics of defective dielectric cylinders
N. Qaddoumi and R. Zoughi 299
A guided wave inspection technique for nuclear steam generator tubing
J.L. Rose, J.J. Ditri, A. Pilarski, K. Rajana and F. Carr 307
An ultrasonic array-based system for real-time inspection of carbon-epoxy composite plates
M. Lethiecq, C. Pejot, M. Berson, P. Guillemet and A. Roncin 311
Characteristics of a novel X-ray detector for real-time radiographic imaging
I. Frumkin, A. Notea, A. Breskin, R. Chechik, L. Levinson, B. Weingarten and V. Popov 317
Development of shear wave acoustic emission transducers
D. Xiang and J. J. Zhang 325

Author index

Abe, H., 141
Adams, G., 21
Atherton, D.L., 201
Ayres, A.M., 75

Berson, M., 311
Bhat, M.R., 27
Blodgett, M., 131
Breskin, A., 317
Busse, G., 253

Carr, F., 307
Chechik, R., 317
Chen, C.Y., 83
Chou, H., 67

0963-8695/94/06/0349–02
© 1994 Butterworth-Heinemann Ltd

Danovitch, Z., 123
Ditri, J.J., 307

Every, A.G., 3
Ewald, H., 249

Frumkin, I., 317

Ghajarieh, R., 141
Golis, M., 131
Guangda, M., 75
Guangwen, M., 75
Guillemet, P., 311

Harbich, K-W., 275
Hardy, Jr. H.R., 191
Hentschel, M.P., 275
Hsu, D.K., 75

Jan, M.L., 83
Jensen, T.H., 89

Kaisheng, T., 11
Karp, B., 21
Kojima, T., 33
Komura, I., 141
Krause, T.W., 201
Krause-Rehberg, R., 235
Kroning, M., 185

Lange, A., 275
Lange, R., 241
Lethiecq, M., 311
Levinson, L., 317

Majeed, M.A., 27
Matsuik K., 33
Mook, G., 241, 269
Morgner, W., 234, 263
Murthy, C.R.L., 27

Nagy, P.B., 131

Pejot, C., 311
Pilarski, A., 307
Popov, V., 317

Qaddoumi, N., 299

Rajana, K., 307
Roncin, A., 311
Rose, J.L., 307

Saka, M., 141
Sakamoto, H., 141
Salz, H., 235
Schacht, J., 249
Segal, Y., 123
Shaofeng, C., 11
Somieski, B., 235
Sturges, D.J., 179
Sugawara, T., 141

Takemoto, M., 67
Tchernov, A., 269

Wang, M.T., 83
Weingarten, B., 317
Winschuh, E., 185
Winterberg, K.H., 185

Xiang, D., 325

Yan, L., 15
Yeh, C.K., 83
Yeh, T.R., 83

Zhang, J.J., 325
Zigao, L., 11
Zoughi, R., 299

Keyword index

Acoustic emission, 27, 33, 67, 191, 325
Anisotropic solids, 3
Applications, 253
Array transducers 311
Axi-symmetric 307

CFRP, 241
Capability, 179
Composites, 299, 311
Computerized image processing, 89
Creeping waves, 131

Damage progression, 27
Deconvolution, 123
Detectability, 15
Dielectric cylinders, 299
Digital radiography, 317
Dimensional measurement, 21

Eddy current method, 241
Elastic constants, 3

Fatigue cracks, 131
Fatigue, 27, 179
Feldkamp algorithm, 83
Finite element method, 141

Gap width, 21
Guided waves, 307

Image reconstruction, 83
Inverse processing, 67
Iron alloys, 235

Kaiser effect, 33

Laminography, 123

Magnetic Barkausen noise, 201
Magneto-inductive testing, 269
Materials characterization, 234
Microseismic activity, 191
Microwaves, 299
Multiple cracks, 141
Multivariate analysis, 249

Near-surface defects, 185
Nondestructive evaluation, 253
Nuclear steam generator 307

Optimizing technique, 15

PbO vidicon, 11
Photoconverter, 317
Photothermal imaging, 185
Plastics, 89
Polycrystalline graphite, 67
Polymers, 253
Positron lifetime spectroscopy, 235
Potential drop technique, 141
Predictive maintenance, 185
Probability of detection, 179
Pseudo random binary sequence, 269

Real-time radiography, 317
Regularizing Fourier filtration, 123
Residual stress, 201
Rock mechanics, 191

S/N ratio, 325
Shear wave transducers, 325
Single fibre debonding, 275
Slit defects, 201
Soft X-ray TV microscope, 11
Standards, 15
Steel sheet, 249
Steel, 269
Structural analysis, 241
Structure sensitivity, 234
Structure-to-property-relationship, 234
Surface monitoring, 249

Tectonic stress, 33
Tensile stress, 235
Thickness gauging, 75
Tomography, 83

Ultrasonic imaging 311
Ultrasonic testing, 75, 131
Ultrasonic velocity, 75
Ultrasonic wave speed, 3

X-ray refraction, 275
X-ray topography, 275
X-rays, 21, 89